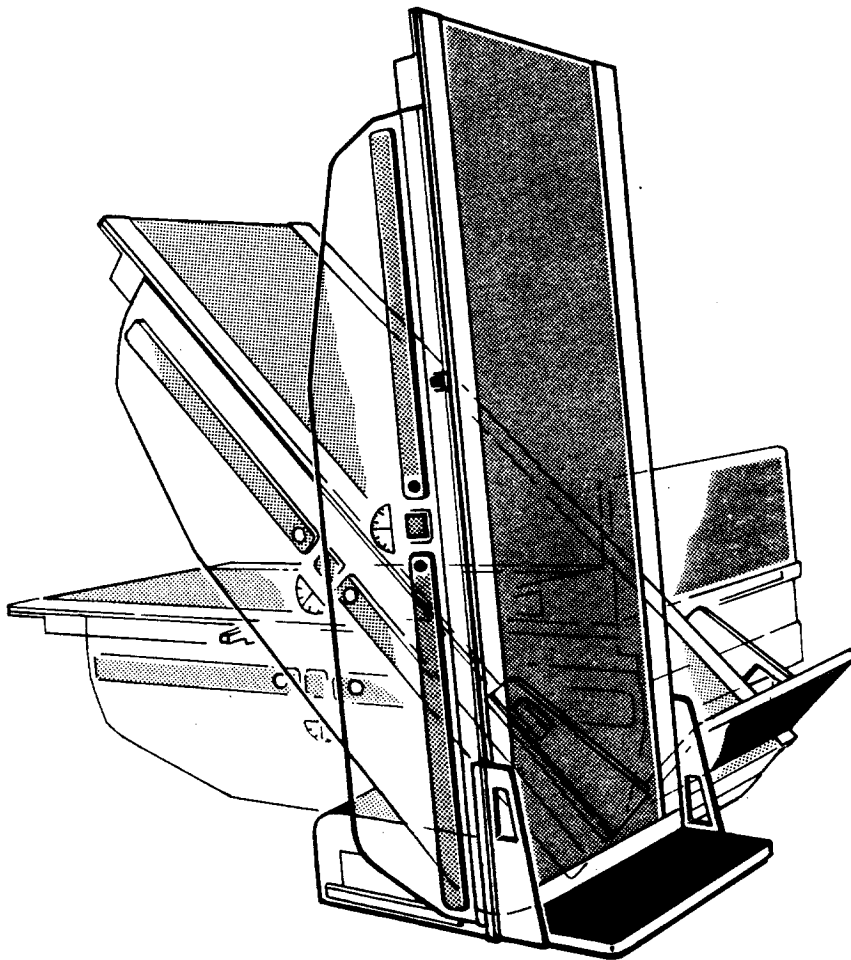


# Operating instructions UT 2000

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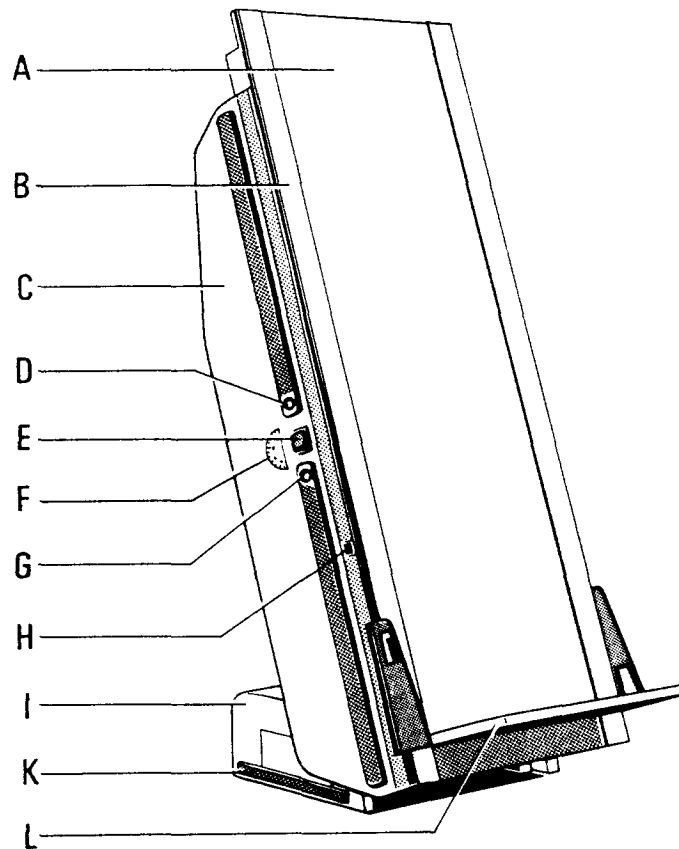


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## Equipment Characteristics

### Design Concept



- A Floating table top of low X-ray absorption
- B Profile rails of special design for accessory attachment
- C Table body, motorized tilting movement
- D Pushbutton, to release the lock for table top shift
- E Control section for table movements
- F Tilt-angle indicator
- G Emergency button
- H Handle for Bucky positioning
- I Table base
- K Footswitch for floating the table top
- L Foot rest, continuously adjustable to required working height, self-braking, removable

## **General**

### **Brief Description / Fields of Application**

#### **Brief Description**

The well-proven construction of the UT 2000 makes patient positioning easy and provides a maximum of operational convenience for the user due to its unique characteristics like

- motorized tilting down to  $-15^{\circ}$  Trendelenburg
- smoothly sliding table top within a lateral range of  $\pm 12$  cm ( $\pm 4 \frac{3}{4}$ ") in any table position,
- floating table top with the table in horizontal position,
- large-sized top provided with electric brakes, having an extended longitudinal travel of  $\pm 53$  cm ( $\pm 20 \frac{7}{8}$ "),
- ergonomically styled controls.

The table may be equipped with Bucky trays of all major manufacturers.

The Bucky covers a range of 120 cm ( $47 \frac{1}{4}$ ") in longitudinal direction and is counterpoised in any table position. Solenoid brakes lock the Bucky in the desired working position.

Due to the minimum film/skin distance of 65 mm ( $2 \frac{9}{16}$ ") the table offers excellent geometric imaging conditions.

The electromagnetic brakes of the table top can be released with the foot-operated switch bar installed alongside the table base, near the floor.

All assemblies and circuits necessary for the equipment operation are mounted in the table base to facilitate servicing. This eliminates the need of additional cabinets. The X-ray transparent area of table top is 204 cm x 56 cm.

#### **Fields of Application**

The wide range of movements of both the table and table top, in combination with ease in handling make UT 2000 the universal tilting radiography table for clinics and private offices. As a convenient and compact Bucky device the UT 2000 is particularly suitable for:

Upright position:

Full Bucky stand for all Bucky work with standing and sitting patients

Horizontal position:

Bucky table for routine Bucky work and traumatology radiography with recumbent patients

Trendelenburg or inclined position:

Diagnostic table for special procedures not requiring fluoroscopy

Versatility is the major advantage of UT 2000 compared to conventional Bucky tables. This eliminates the need of an additional wall stand and renders the equipment very economical in operation.

## **Installation**

### **Required Floor Space / Room Height / Connections / Power Supply / Important Note**

#### **Required Floor Space**

The table is designed for stationary operation. It requires a free floor space of approximately 330 x 150 cm (130" x 60").

#### **Room Height**

Under certain operating conditions the equipment reaches a maximum height of 230 cm (90.6").

#### **Connections**

The equipment is designed for a permanent connection to a single-phase AC line. For the following line voltages no additional line transformer is needed:

Nominal voltage	115/230 VAC (phase/neutral/protect. ground)
Current rating	8/4 A
Line frequency	50 or 60 Hz
Nominal current	20/10 A
Power rating	1 kVA

#### **Power Supply**

The supply line must be fed via a 30 mA earth-leakage circuit breaker provided by the builder. The room installation has to comply with locally applicable regulations. In the Federal Republic of Germany the provisions of VDE 0107 are binding.

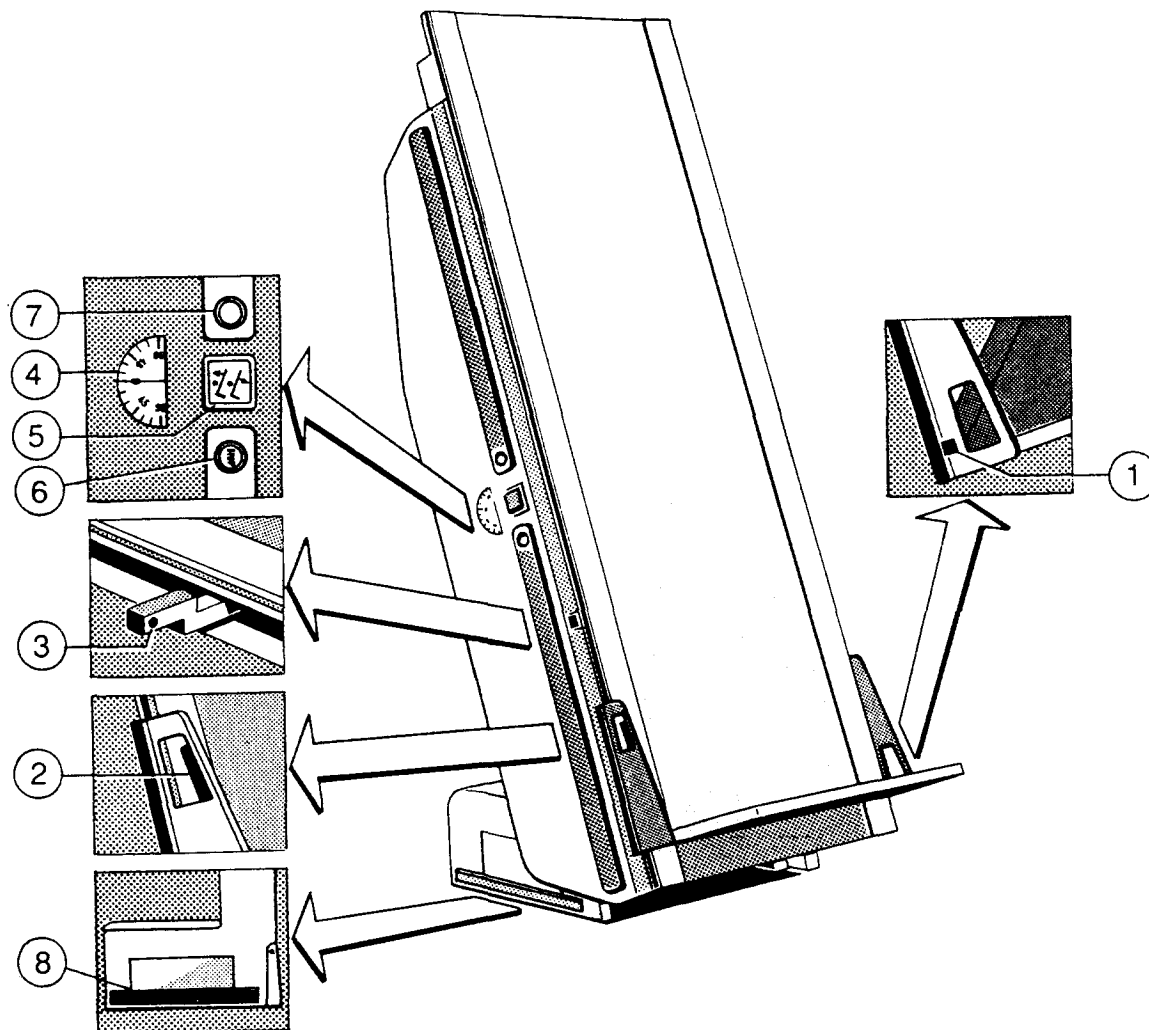
#### **Important Note**

The user must be familiar with the Operating Instructions in order to be able to operate the equipment. Please read the entire Instructions before putting the table into operation. Special attention should be given to the section "Safety Instructions".

## Operating Controls

### Arrangement / Meaning of Symbols / Functions

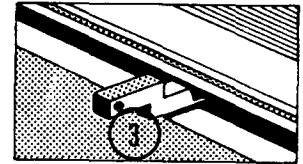
#### Arrangement



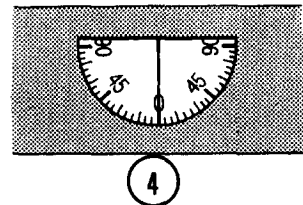
#### Meaning of Symbols / Functions

- ① **Foot rest slide-out stopper** - For removing the foot rest from profile rails press the latch (2) to release the slide-out stopper.
- ② **Latch** - Pressing the latch unlocks the foot rest. The foot rest may be moved along the table top as long as the latch is kept depressed, but locks automatically in the current position upon release of the latch.

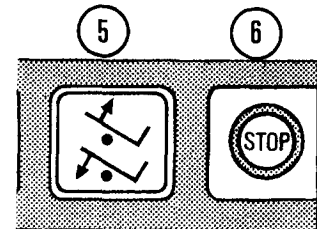
Pressing the lever releases the electric brakes of the Bucky. The Bucky tray can be moved in longitudinal direction as long as the lever is held, but locks in the momentary position upon releasing the lever.



The tilt angle indicator facilitates adjusting/reproducing defined table positions to produce comparable images.



The rocker switch activates the tilt motor. The table stops automatically in its end positions ( $-15^{\circ}/+90^{\circ}$ ) and in horizontal ( $0^{\circ}$ ) position. Continuing through  $0^{\circ}$ : release the switch and press again. The movements are only possible when the table top is in the defined longitudinal standard position. Maximum Trendelenburg position:  $-15^{\circ}$



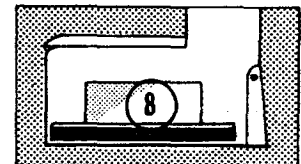
To switch off motor in emergency cases.

**Emergency stop switch**

The emergency button interrupts immediately the power supply to the drive motor. To be used in case of emergency.

To release the brakes for manual "floating" of the table top with the table in horizontal position ( $0^{\circ}$  position). And: To release the brakes for manual table top shift in lateral direction with the unit in Trendelenburg and in tilt-up position.

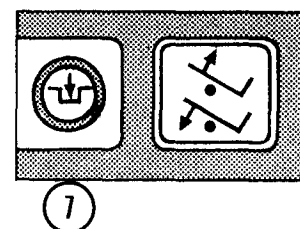
Lateral Range of movement:  $\pm 12$  cm ( $\pm 4.72$ " )



**Switch position**

To release the lock for manual table top shift in longitudinal direction with the table in horizontal position ( $0^{\circ}$  position). Table top position in lateral direction remains unchanged. Longitudinal Range of movement:  $\pm 53$  cm ( $\pm 20.87$ " )

**Pushbutton**

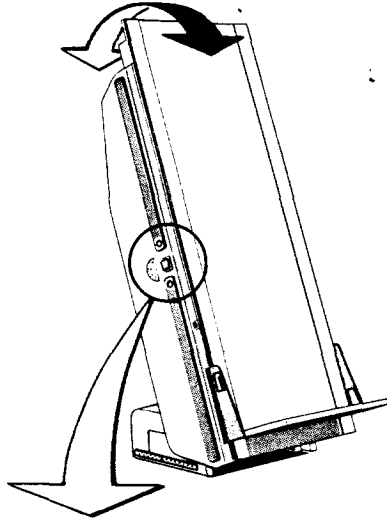


**Switch position**

For automatic catch and lock of the table top in the defined standard position with table in horizontal position ( $0^{\circ}$  position). The table top lock engages automatically when the table top reaches the centered standard position in longitudinal direction. The table tilting movements are only possible when the defined standard longitudinal position has been reached.

## Preparation for Radiography

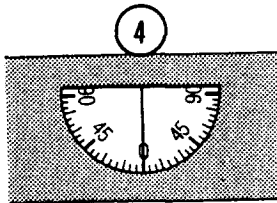
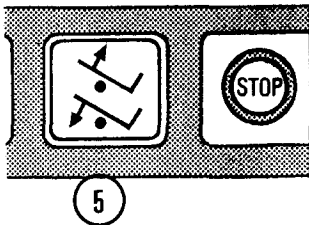
### Tilting the table



Rocker switch (5) activates tilting:  
:downward :upward Press and hold  
the switch (5) until the desired incli-  
nation has been reached. Then release  
the switch.

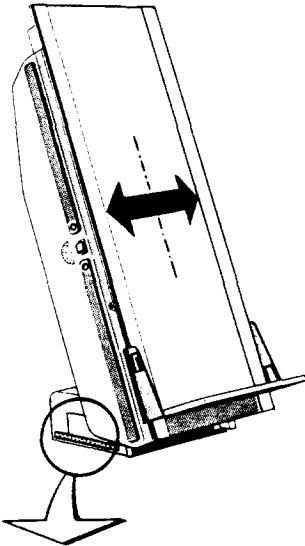
#### Note:

The upward tilt is only possible when  
the top is in its defined longitudi-  
nal standard position. Tilt movement in  
either direction stops automatically in  
the horizontal ( $0^\circ$ ) position.



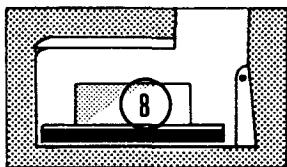
### Tilting to a defined angle:

The tilt-angle indicator (4) shows the  
momentary inclination of the table.



### Shifting the table top transversely

Press the foot switch and keep it de-  
pressed.  
Move the table top in the transverse  
direction and release the foot switch  
when the desired position is reached.



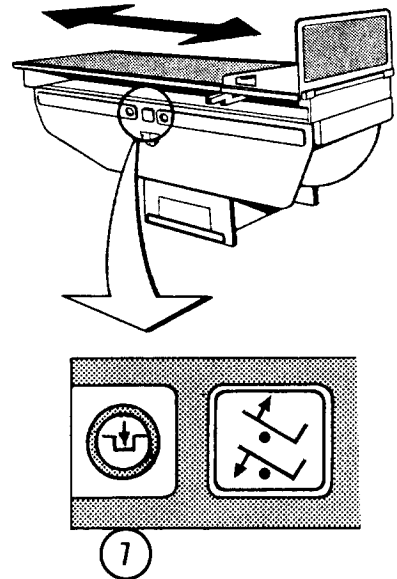
**Note:** The table top can be moved in la-  
teral direction over its entire range  
independently of the table inclination.



### Shifting the table top longitudinally from its standard position

Tilt the table to its horizontal ( $0^\circ$ ) position (automatic stop). Press pushbutton (7)

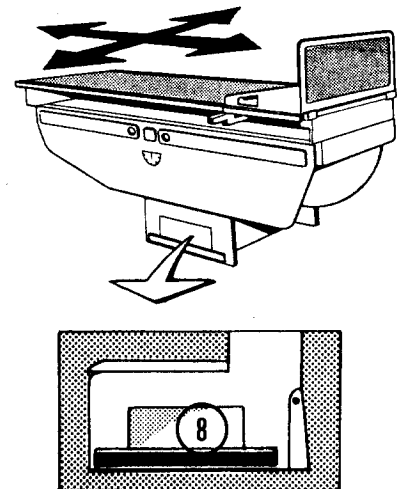
**Note:** The locks can only be released with the table in the  $0^\circ$  position (exactly horizontal). Shifting the top longitudinally from the defined standard position disables the tilting function.



### Floating table top movement

Press the foot switch and keep it depressed. "Float" the table top into the desired position and release the foot switch.

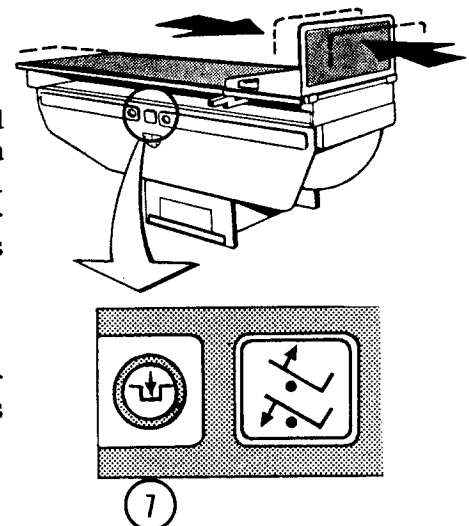
**Note:** "Floating" table top movement is possible only with unlocked table top.

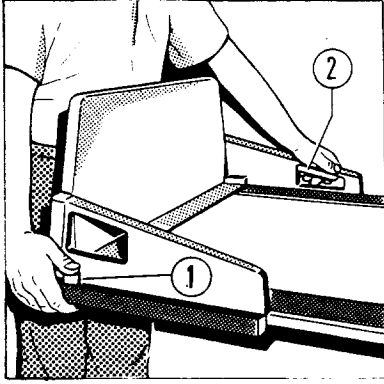


### Catching and locking the table top in its standard position

Operate switch in the foot-operated switch bar and shift the table top in longitudinal direction until you feel it clicking into standard position. After a short delay, the table top is locked in place automatically.

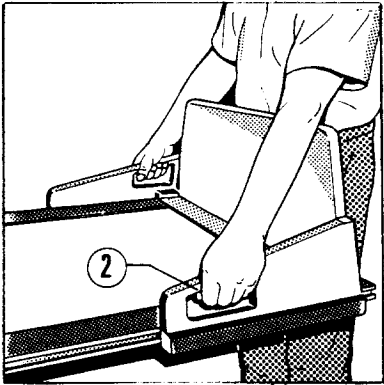
**Note:** With the tabletop prepared for the catching action, the longitudinal brake is released.





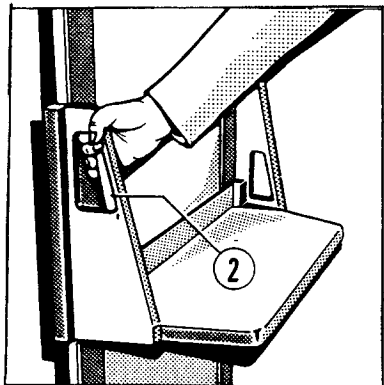
### Removing the foot rest

Place the table in horizontal ( $0^\circ$ ) position. Actuate the latch (2) with the left hand and press the slide-out locker (1) with your right hand. Now pull the foot rest out of the profile rail and store it safely.



### Remounting the foot rest

Place the table in horizontal ( $0^\circ$ ) position. Pull the latch (2) and insert the foot rest into the profile rails until the slide-out locker catches on.



### Adjusting the foot rest

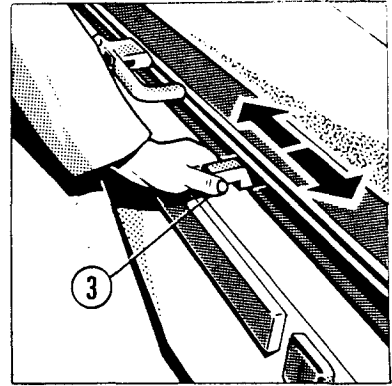
Pull the latch (2) and slide the foot rest to the desired position.

### **Shifting the Bucky**

Press the lever (3) and hold it depressed for moving the Bucky tray to the required radiographic position. Release the lever to lock the Bucky in place.

#### **Note:**

The Bucky tray is counterpoised in any table position. This however, does not compensate for the different weight of different cassette sizes.

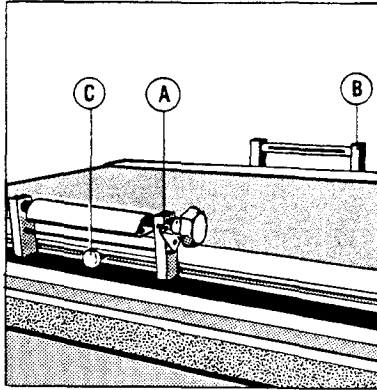


## Accessories

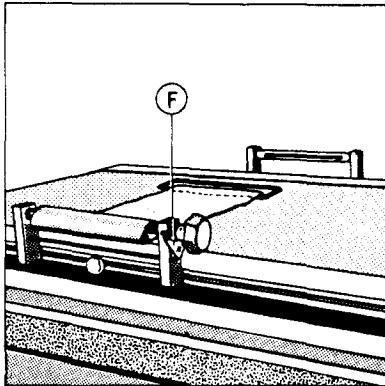
**Compression Belt / Cassette Holder / Head Support / Hand Grips**

### Compression Belt

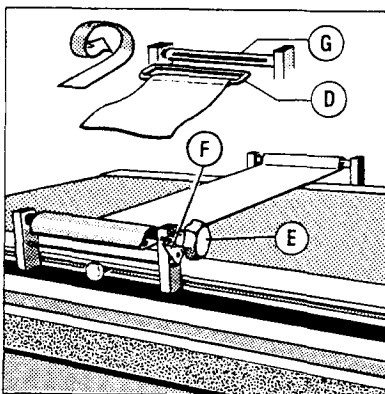
#### Installation



Insert the tensioning section (A) into the rail on the operator side and secure it in the working position by means of the grip screw. Insert the support section (B) into the opposite rail and secure it with the grip screw.



Press the pawl (F) and unwind the cloth belt to place it over the patient's body.



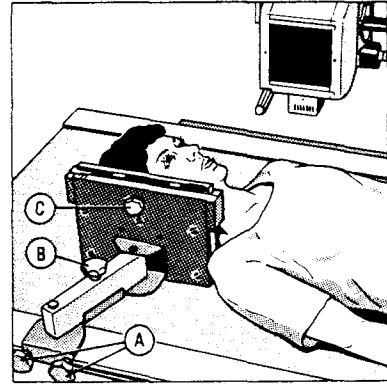
Now fit the end ring (D) in the slotted axis (G) and put one turn of the compression belt around the support section axis. Use the grip screw (E) to tighten the compression belt for patient fixation.

Relasing the compression belt:  
Press the pawl (F).

### Lateral cassette holder

The lateral cassette holder permits lateral exposures if the tube unit is mounted to a tube swivelling device. The lateral cassette holder is slipped in one of the profile rails.

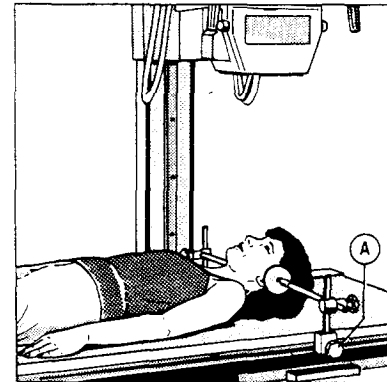
Grip screw (A): secures the holder at the table top  
Grip screw (B): locks the holder setting  
Grip screw (C): fixes the lateral position of the cassette clamps.



### Head support

The head support is slipped in both profile rails of the table. It may be locked in any desired working position. The padded support disks can be adjusted to fix the patient's head in the necessary radiographic position.

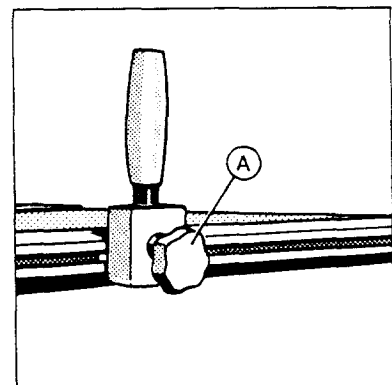
Grip screw (A): secures the holder at the table top  
Grip screw (B): locks the support arms



### Hand grips

The hand grips are slipped in the profile rails of the table. They may be fixed at any position and offer a reliable hold for the patient.

Grip screw (A): secures the grip in place



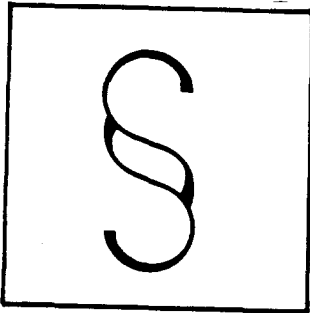
### Important note:

The positioned patient may only hold on to the handgrips. In no case may he put his hands around the edge of the table top.

## SAFETY PROCEDURES

### Regulations/Product Safety

#### Regulations



It is the responsibility of the user to ensure that government regulations for in the operation of the equipment are observed. The safety of patients, personnel, and others, as well as the efficient functioning of the equipment require periodic service inspections at 12-month intervals and according to maintenance schedule. Please apply to our service organization for inspection and maintenance. By all means Inspection intervals have to meet the requirements of the respective legislation or government regulations.

Changes and additions to the equipment must comply with relevant legislation as well as with accepted standards of good practice. As manufacturers of electromedical systems, we assume responsibility for the safety of the equipment only if maintenance, repairs, and changes are carried out exclusively by us or third parties expressly authorized by us to do so, and if defective parts relating to the safety of the equipment are replaced by genuine spare parts.

We recommend to ask the service personnel to issue a certificate specifying the kind and extent of the repair carried out, including details on any change of ratings or working ranges. Also, the certificate should show the date of repair, the name of the service company, and the signature of the technician. Before operating the equipment, the operator must control all devices concerning the safe and efficient functioning. Special attention must be paid to the accurate functioning of the safety device for lowering the table.

Always disconnect the equipment from the mains for cleaning or disinfection. We recommend that parts coming in contact with the patient should be cleaned as follows:

**Cleaning:** Use non-abrasive cleaning agents, such as mild detergents etc.

**Disinfection:** Use diluted, aqueous disinfectant solutions.

## **Product Safety**

### **Explosion Protection**

The equipment is not intended for use in explosive atmospheres. Only use skin cleansers that form non-ignitable gas/air mixtures.

### **Protection Type and Protection Class**

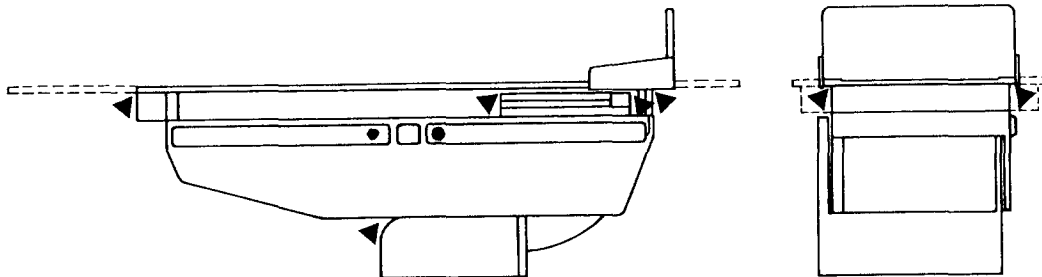
The equipment corresponds to protection type IP 20 and to protection class I.

### **HF Interference Suppression**

The equipment complies with the regulations applicable in the Federal Republic of Germany, the major portion of which follows the CISPR Publications.

### **Mechanical Safety**

Arrows in the sketch below indicate points of the equipment where there is a potential hazard for patients and operating personnel to get squeezed or bumped.



### **Radiation Protection**

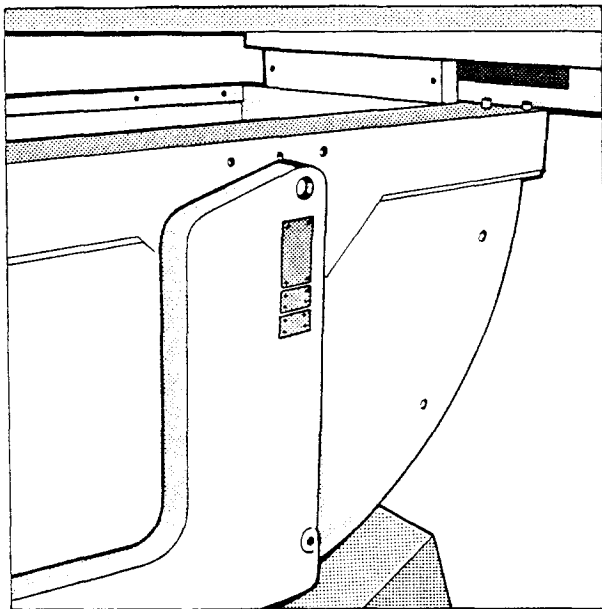
The equipment has no controls to turn on X-ray radiation. Exposures are released from the radiation-protected area at the control console. The general regulations for radiation protection must be observed.

Furthermore, we recommend the following measures:

1. Keep the tube current as low as possible.
2. Collimate the radiation field to the smallest possible dimensions.
3. Keep as far away as possible.
4. Provide adequate radiation protection for the patient.

## Maintenance

Preventive maintenance should be performed by our service department in regular **12 months** intervals to ensure troublefree and long-lasting equipment operation as well as optimum safety for patient and user. (Refer to section "Maintenance" in the Installation Instructions).



Model No.	<input type="text"/>		
Serial No.	<input type="text"/>		
Input	<input type="text"/>	Voltage	<input type="text"/>
<input type="checkbox"/> Phases	<input type="text"/>	Hertz	<input type="text"/>
Amperes	<input type="text"/>		
Date Mfg.	<input type="text"/>		
This product complies with applicable standards under "21CFR Sub-Chapter J"			
Made by Hans Pausch Graf-Zeppelin Str. 1 8520 Erlangen W-Germany			

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Alterations as a result of technical progress are reserved.  
TV/Ru

Hans Pausch X-Ray Equipment Manufacturer Erlangen, Germany